Introduction to timber harvest planning

This article explains how to use maps, soil surveys, aerial photographs, contracts and other documents for timber harvest planning. It lists the many different components forest workers and landowners should identify to prevent erosion from a timber harvest site.

The key concept in planning a timber harvest is to gather information and use it. Prepare a timber harvest plan that reduces forest soil erosion before loggers and their equipment arrive.

The decision to harvest timber always lies with the forest owner or the owner of timber rights on a piece of property. The size, duration, and timing of the harvest may be influenced by other factors, but the "green light" comes from the forest owner. A substantial proportion of forest owners in New York may face this decision at some point. Without good information, the decision to harvest timber can cause long-term harm to our forest and wildlife resources.

Forest owners should avoid looking at timber assets as a solution to temporary financial or family circumstances. Long-term thinking can pay off with higher economic and ecological rewards. If money is your main objective, using all these best management practices is the best way to gain the most money over the longest period of time.

Forest owners who are approached by loggers or foresters pressuring a sale should be especially cautious. These individuals are not likely to have the best interests of the forest owner or their forest in mind.

Once a landowner has made the decision to conduct a timber harvest, a period of planning and preparation begins. Pre-harvest planning is the gathering and analysis of maps, photographs, a forest inventory, and other documents, coupled with several visits to the future harvest site. In this process, potential mistakes are identified and avoided. The landowner, forester, and logger each provide and receive important information about each other's expectations and can form a good working relationship.

Landowners, foresters, and loggers are all responsible for ensuring logging activities do not cause environmental harm to streams and lake waters. For cost-conscious landowners and loggers, it is always more economical to prevent erosion, rather than fix areas damaged by erosion. Fines for violating Environmental Conservation Laws can be severe.

Six Important Points in Preharvest Planning:
1. **Review where the timber harvest fits into the forest owner's plan.** Many foresters and loggers understand that sustainable forestry starts with a good management plan. This written document contains baseline information about the forest, an inventory of the timber growing there, a description of your goals, and steps on how to reach those goals, while sustaining the productivity and health of the forest. The forest and forest owner can benefit if the plan calls for harvesting at the time proposed.

2. **Obtain a topographic map of the site.** On the topographic map, mark important features, like streams, existing roads, property boundaries, steep grades, and road access.

The plans you make on topographic maps might appear to create restrictions when the timber is being harvested. In reality, these maps will help you avoid problems and provide many benefits. After using a topographic map to help plan a timber harvest, many find their use to be second-nature.

Even though topographic maps are considered to be highly accurate, it is important to field check your work. The maps can not show all property features, especially with larger forests. Take a copy of the map out to the logging site and determine if any roads or trails need to be relocated.

3. **Obtain a soil survey of the site and aerial photos.** Use them to identify, wet areas, soil that is poorly drained or has a seasonally high water table, and gullies. Mark these areas on the topographic map.

4. **Plan the timing of the harvest and possible locations of the landing, stream crossings, culverts, and temporary roads.**

On the base map for the timber harvest:

- Mark the outline of the timber harvest zone and the property boundaries
- Note where well-drained and poorly drained soils are
- Mark existing forest roads or rights-of-way, even though they may not be used
- Indicate the proposed landing, roads, skid trails, and equipment / fuel storage
- Mark critical areas (steep slopes, streams, smaller stream channels, wetlands, and floodplains) in red, realigning plans for the timber harvest accordingly
- Designate stream crossings
- Designate areas adjacent to streams and gullies as special Streamside Zones, where timber harvesting should be controlled or avoided.

5. **Obtain proper permits for harvesting and moving timber.** Few landowners enjoy or agree with the need to obtain permits, but they have a record of preventing harm to the public water resources we all share and depend upon.

The first step is to call the county Soil and Water Conservation District office and the regional NYS DEC office and ask for staff that handle water quality protection permits. In New York, DEC Permits are needed to cross "classified streams" - streams that have
special designations based on existing or expected uses, like drinking water, swimming, fisheries, and trout spawning. Special requirements apply to sustain these waters that support these valuable and sensitive fisheries resources. A Protection Of Waters Permit is required if the timber harvest somehow crosses these protected streams, whether temporary or permanent.

The DEC can also issue a more straightforward permit through the Standard Activity Permit Process (SAPP). These are appropriate for simple logging jobs that do not involve many stream crossings and will help ensure you are not at risk of violating Environmental Conservation Laws. A DEC Forest Ranger, can assist you with questions about SAPPs.

In some cases, the building of new logging roads may be considered a construction activity, depending on how long and wide the new roads are. If this applies to the planned timber harvest site, a DEC permit related to Stormwater Discharges from Construction Activities may be needed. This permit calls for a stormwater pollution prevention plan in compliance with New York's Environmental Conservation Law. Contact the permit division at your regional DEC office, or check with county Soil and Water Conservation District staff.

Local counties and towns or the Army Corps of Engineers may have other permit requirements. The Soil and Water Conservation District staff will be able to tell you whether and which permits might be necessary. Be sure to follow through with these completely to avoid fines and work stoppage.

6. Arrange this information into a sound contract that protects all parties involved in a timber sale. Develop a contract between landowner and logging company to make clear what water quality BMPs will be used and where.